5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

making salt were described to me, the housewife depends mainly on trade salt. Meals never consist of more than one course. Plates, forks and spoons are owned by all households but people do not always use them. While boiling is the most common way of preparing food, bananas, yams and breadfruit are usually roasted. Meat is often preserved by daily smoking, sometimes for long periods. There is a rule against eating meat 'in lent' and this is kept very strictly, but probably for traditional religious reasons to be discussed later. The main drink with meals is a soup consisting of the water in which the vegetables and herbs were cooked.

Foraging. A good deal of plant and animal food is obtained from foraging, especially in the tropical rain forest which covers most of the Northern District. Among foraged animal foods I would mention especially grubs, frogs, snails, rats, bush eggs and lice. Foraged plant foods are especially valued during the dry season when roots, leaves and fern fronds may make up part of a meal. Savoury herbs and leaves, however, are collected at all times of the year. Some food plants, though growing in the forest, are owned by individuals so that the gathering of these plants may be better described as harvesting than collecting. The most important are the *taugu* and *pugu* nut, sago, breadfruit, wild fig, and fruiting pandanus.[4]

Hunting. According to Waddell and Krinks, about two man hours weekly are spent on hunting (3.7 hours by men and 0.3 hours by women). Hunting patterns on the Mount Lamington foothills differ widely from those on the alluvial plains where kunai grass is widespread. On the foothills, there is hunting in reverted gardens and in very limited areas of virgin bush. The usual quarry consists of small marsupials and birds. If a pig is encountered, it is invariably a village pig whose owner has a claim to the carcase. The game population was virtually exterminated after the introduction of guns in the 1950s. In the kunai country, on the other hand, hunting land is abundant. The technique is by firing the kunai so that the animals can be shot when they escape. Such a hunt requires a large number of men who ring the burnt-over area. Not only marsupials but also pigs are killed, either by gunfire or by being roasted alive in the kunai grass. By no means all animals killed in the fire are retrieved. Fires tend to get out of hand and to spread over surrounding bush land which then is often covered with kunai grass and so is useless for purposes of cultivation.

Fishing. The supply of fish has suffered greatly with the introduction of snorkels after the Second World War, as this equipment enabled the Orokaiva to fish out their rivers almost completely in a very short time. Fish is still an important resource, however, in the lower reaches of the huge rivers which run through the Northern District: Kumusi, Ambogo, Girua, Sambogo, etc. In Inonda, the village studied by Crocombe and Hogbin (1963) and Waddell and Krinks (1968), 3.8 man hours per week are spent on fishing, mostly with spears, and the product is used not only for consumption but also for trade. (Inonda people also trade meat and bush eggs.) Many of the villages near the mountain, such as Sivepe, have very little fish. Apart from a few eels and crabs, the rivers contained a small supply of two-inch-long fishes caught in April with a small hand-net used as a scoop. (See Williams 1930:53 for description.)

Animal Husbandry. There are three kinds of domestic livestock: pigs, dogs and fowls. Every man still has one or more small dog which he uses for hunting

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

pig-lending becomes a simulation, on a minor scale, of the customs of marriage exchange, where a reciprocating pair of groups send back and forth a female marriage partner at intervals of one generation.

This assimilation of domesticated pigs to human members of exchanging social groups is emphasised by much customary behaviour towards these pigs. This behaviour goes beyond co-residence in the same house and the use of kinship terms of reference, but extends to strict taboos of wide range prohibiting the eating of domestic pigs by their rearers.

4. *Wild Pigs as Victims*

Williams (1930) describes in detail the techniques that are, or were, used for the hunting of pigs: the use of spears, pig-traps, and the collective burning of *kunai* grass to drive pigs towards their pursuers. I myself witnessed such a burn, in which three villages participated as owners of the burnt-over land (Inonda, Urio, Musou) as well as some hunters from Ajoro. The myths explaining the origin of the various techniques of hunting and of cooking the meat do not enlighten us greatly in the study of exchange, except to confirm a point already made in a previous chapter: the *dema* figure who is remembered as having 'given' a certain technique to mankind, is invariably described in the myth as the first *victim* of that technique. The ritual of killing is a very simple one: it consists in calling out one's clan name before striking the fatal blow. This is supposed to give the hunter the strength (*ivo*) he needs in order to kill. Both killer and victim are thus symbolically identified with a primal ancestor.

The killer of a wild pig is not bound by the same ritual restrictions as the killer of either a man or a domestic pig. Williams states that he found no rule prohibiting a man from eating his personal quarry. Nonetheless, I found that in practice the meat of the wild pig virtually always serves some purpose of exchange-sale, barter or the mediating of social relations. The two wild pigs killed by Inonda men during the hunt to which I have already referred will serve as an example.

Killer A presented his pig to his mother's brother who lives in Ajoro. Killer B presented his quarry to killer A, who is B's brother's wife's brother. A distributed most of the joints to men and women from Inonda (including B), and to two Ajoro men who had returned from the hunt empty-handed, but kept one joint. A's mother's brother kept part of the animal he had been given but distributed the rest of it to his Inonda relatives, including A., as well as several affines. In the end everyone in Inonda had received some meat, but sometimes this meat had gone through several hands. For instance, A's sister did not receive meat from the animal her brother had killed, but from the animal her brother received as a present. Her brother gave several joints to B and it was from one of these joints A's sister was able to eat, because B gave it to his own brother who was A's sister's husband.

After this set of circuitous transactions the fires were lit. I noticed that only some of the meat was boiled but that most of it was smoked for later use, In fact only a fraction of the two slaughtered pigs was eaten that night. The smoked meat was kept for a variety of transactions. In line with the modern trend, these included sale at the market, but there were also traditional prestations, e.g. a gift

Only one man owns a mosquito net and there is only one transistor radio in the village. Some of the older people still wear tapa cloths but new ones are seldom made now. The more common form of dress is a pair of shorts, a skirt or a laplap, the skirts being mostly sewn at mothers' union sewing classes run by the Anglican mission at Sasembata.

Two men in the sample own shotguns, costing $58.75 and $59.75. These are the only items in the village representing large capital outlays and several other men had made contributions of $2 and $6 towards their purchase, so they can borrow them in return.

None of the houses conforms to the traditional Orokaiva style, but all are built wholly of local materials. They contain no raised platforms for sleeping, no shelves for food storage, and no cooking facilities other than an open fire. One man has built a 'kitchen extension' to his house while several other households cook primarily in shelters outside. Also, one man has built a simple table and bench outside and some members of the household occasionally eat at this.

A creek running beside the village provides the water for bathing, cooking, laundering, washing dishes and pulping coffee. Paths are narrow and unimproved despite constant use so that they become difficult to negotiate in wet weather. Not all households have pit latrines and those that do only use them irregularly. Small children often defecate on the village surrounds and standing water in various parts is a further health hazard.

Inonda

Inonda lands run from the low plains (200 feet above sea level), beside the Sambogo and Girua rivers, into the foothills of the Hydrographers Range. They include a variety of landforms, soils and vegetation - one-third of the village lands are covered with soils of the Popondetta family, which are well-drained sandy loam volcanic soils, supporting grasslands of Saccharum spontaneum-Imperata cylindrica alliance; one-fifth consists of coarse-textured riverine deposits which are moist, apparently fertile and support forest and regrowth. These are preferred for food gardens, although gardens are also made on the lower valley slopes of the Hydrographers, where the soils consist of well-drained clay loams covered with dense forest or secondary growth. The soils of the foothills are shallow and stony, supporting lower montane rainforest and, as with the grasslands, this area is used only for hunting and foraging. The CSIRO survey classifies most of the Inonda lands as having moderate land-use potential.

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a [224] fact dictated largely by the density of occupation where intensive [512] utilisation of the forest has greatly reduced its plant and animal resources - both hunting and sago-making are of limited importance and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig [136] high on the slopes of Mt Lamington but this has ceased now they 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used or special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily f[illegible] two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually 222 dry weather.

252 Sago-making is a highly seasonal activity. In Sivepe, production [22] is confined primarily to the dry season when 1.5 hours per man-week [512] were spent on it, rising to 6.4 hours in week 16 when only taro [461] gardening, among subsistence activities, was of greater importance. The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

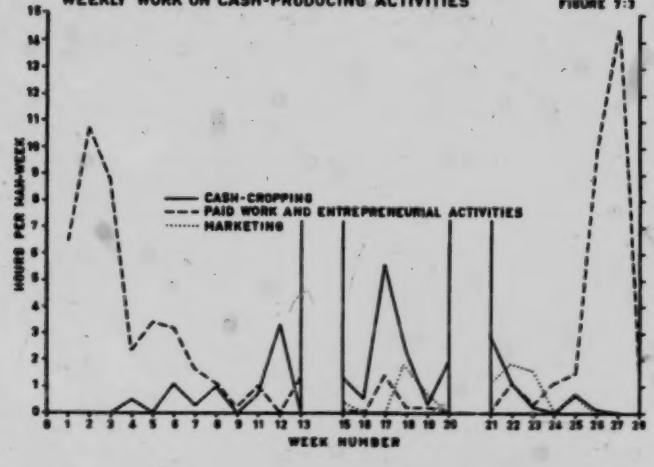
[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

512
461

INONDA
WEEKLY WORK ON CASH-PRODUCING ACTIVITIES

FIGURE 7:3



222 The gathering of forest plants receives more attention during
462 the dry season to compensate for lower garden production. The
262 increased dietary significance of such plants at this time is,
perhaps, understated in Table 7:3, since women often collect green
leaves beside paths while walking to or from other activities and
224 such gathering may not be recorded. In addition, a considerable
221 amount is gathered by children. Hunting also increases during the
dry season, with the increased number of wild pigs. However, a
[411] significant factor in 1964 was the acquisition of a shotgun in July
by the leading man (with financial assistance from others, who
thereby acquired rights of use). From this time, hunting to obtain
226 meat for both food and marketing increased, becoming most popular
221 during period III when marketing also was most frequent. Due to
the drop in water levels, the time devoted to fishing during the dry
season is much less than in the rest of the year, but over the year
as a whole, more time is spent in it than in any other single activity.

241 to Inonda men, and his three son-in-laws assisted him to make the garden, which covered an area of 2.32 acres.

241 Fencing: Wild pigs living in the nearby forest are always a menace to the food crops and the people erect fences 417 and set traps to protect their gardens. The first panel of a fence is built where the people consider that pigs are most likely to enter the garden (usually the side facing the forest). Often, no further fencing is done until a pig enters the garden through an unfenced area. Then another panel may be built and this sequence is continued until the garden is almost pigproof. Natural barriers such as steep-sided creeks and large fallen trees are incorporated into the fences whenever possible. Households with neighbouring gardens often work at the same time (but independently) in order to reduce the amount of fencing required to surround the garden area.

[462] All members of the household help with fencing but most of the heavy work is done by men. Straight green saplings about two inches in diameter are cut into stakes six feet long and thrust into the ground in pairs about nine inches apart with two feet between pairs. Logs of up to six inches in diameter are then either brought from the garden where they have been stacked after clearing, or are cut from the forest. They are piled horizontally between the pairs of stakes to a height of four to five feet, and the stakes are lashed together with wagesi vine to hold the logs in place. The warm moist climate causes fences to decay rapidly but they usually remain effective for about a year, by which time all but the latest-maturing garden products have been harvested.

214 Hunting, fishing and foraging: Inonda is more fortunate than many Orokaiva villages in that it has few people and extensive hunting lands. In fact the greater part of the total land area is used only for hunting and foraging. During the first month of our stay, ten wild pigs were speared or shot - a considerable quantity for a village of eight households. In addition, birds, bandicoots and other game were killed. One of [411] the villagers owns a gun which he makes available to others and this has in all probability reduced the time spent in hunting and at the same time increased the product.

placement cost is 19/6 for an axe and 12/6 for a bush knife, or a total of approximately £2.10.0 per family.

Most men own a shovel or two and three men have picks, but these were all collected from an abandoned army dump. They are used mainly for digging house posts and drains, though some use shovels to plant sweet potatoes. Most households have a grass-cutting knife for cutting grass around the houses and along the roads and a few men have some basic carpentry tools.(1)

Every man has one or more hunting spears which he has either made himself or inherited from a real or classificatory father. They are simple weapons and are said to take not more than a day to make. The councillor owns a gun which he purchased for £29.0.0.

Livestock

Domestic pigs and fowls are kept in small numbers. They are said to be owned by men, cared for by women, and eaten by all. They are killed only for feasts. Six householders have one pig each, one has three and one has seven. Only four households have fowls - one has twenty-four, one has two and two have one each. Eight of the pigs were bred by the owners, one was purchased for £1 cash, one was given by a man's former work-mate and six were given as piglets by relatives. Twenty-four of the fowls were obtained by barter, one by cash purchase, two by gift from a former work-mate and one by gift at marriage from a relative.

The only other domesticated animal is the dog, of which there are three in the village. Though only two men have dogs, they are used quite frequently for hunting.

Owing to the constant pressure on owners to make

(1) The total agricultural and other tools in the village are as follows: 10 shovels, 11 axes, 18 bush knives, 9 gun knives, 3 picks, 1 hoe, 7 hammers, 4 saws, 1 pinch bar, 3 chisels, 1 adze and an assortment of hunting spears. Total current replacement value is £25.5.0.

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

142
241
412
411

Fig. 7. *The New Guinea gardener's work tools, an axe, and large bush knife. The strong heavy spear is carried just in case he should see a wild pig. The cigarette, rolled with newspaper, is almost indispensable to most New Guineans* [276]

trunk of the sago palm which grows in wet or swampy ground. The sago is extracted by first cutting down the palm, then pounding up the fibre and washing out the starch. This passes through a coconut fibre screen into a settling tank. Four people can make 100 pounds of sago a day. 222 252 [461]

e) *Grass fires.* The origin and extension of tropical grasslands has long been a matter of debate. Large areas of grassland occur in Yega territory where villagers regard them as practically useless. Grasslands are extended by fire but only in special circumstances. Grassland fires seldom penetrate or destroy an area of mature rain forest or even areas of well-developed secondary growth. The danger period is the first two years after a swidden is abandoned. At this time there is a large quantity of grass and undergrowth amongst the young trees. If a fire spreads from adjacent grasslands to this highly inflammable material the young trees are destroyed. Being immature, they have not yet seeded and further forest regrowth is prevented. This circumstance is most likely to occur on the south-west margins of grassland areas where strong north-easterly 372

[P.10-A]

311 products, such as slow-growing trees, which are used for house
423 posts, drums, and other artifacts. A great deal of Sivepo land is in young bush but this is fallowed garden land. After eight years or so, it grows sizeable trees, and sometimes it is fallowed for much longer. In this bush, many trees may be found that have actually been planted by man and are owned by individuals. Prominent among these are breadfruit, various nut trees, fruit trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
[222] these, to forage and to hunt. Although hunting expeditions do occur periodically, and cause much excitement, they yield very
[136] little meat. Not only is the area too small to contain much game, but also it appears that very few birds and no game apart from
[411] small marsupials are actually still left. The same is true for the rivers which contain very little fish. I could not help wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting expeditions occurred only when there was a feast, and when the offering of fresh meat to guests was especially desirable. (Tinned meat might be cheaper than the cartridges but much less esteemed.)

311 In this respect, the situation was very different in Inonda where only a fraction of the land was used for gardening so that almost all of it was hunting land. Most of this was in kunai grass, which was very often burnt over. The effect of these burnings was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
223 in meat was much higher, however, so that in Inonda, meat actually became an economic resource: it was sold on the market and used as gifts in return for feathers and other valuables. There are more birds at Inonda than at Sivepo, more marsupials and also a good chance of an occasional wild pig. Neither at Sivepo nor at Inonda is there evidence today of the use of traditional hunting techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
[295] duction of guns and snorkels which greatly increased yields for some years, but then led to a greater scarcity than had ever been
[199] known in the past. Guns and snorkels were introduced shortly after the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly in both villages. It was impossible to know how many pigs were owned by Sivepo people in 1966-67, because they disappeared as the old village became deserted and were never seen at all in the new village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepo people alone which suggests that even in 1963, when he stayed there, the whole village must have owned at least 60. During my period of study, only a few of them were killed, and only when

231 they marauded gardens, so that I assume that a good number could be rounded up if Sivepe were to hold a major feast. They were not at all accessible, however, and none were caught during such hunting [422] expeditions as the people organised. On the occasions when marauding pigs were shot, the pigs were always recognized and presented by the killer to the owner who then presented his pig to some other person. No doubt these pigs were a resource and perhaps I was at fault for not taking a census, but with no pigs visibly in evidence, I considered these assets as too shadowy. In Inonda, where Crocombe and Hogbin reported 12 pigs in 1962, only two were left in 1966. 235 My prognosis for pigs as an economic resource is poor. The fowl [262] population, on the other hand, had remained very much as it was at these earlier investigations: eggs were discovered and eaten occasionally, but the use of the fowl was for feasting when visitors [239] had to be entertained. It was also noticeable that the roosters [293] were deprived of many of their choicest feathers at a time when headdresses had to be refurbished for dancing or spears decorated. [411] At a visit from Togahou, which by traditional etiquette, as I understand it, should have rated at least one pig, the people of [574] Sivepe killed only fowls. This was, I was told, because there were no pigs available; hence the fowls were a proper substitute. It would seem that the fowl is rapidly becoming the substitute for the pig on many ceremonial occasions, though not yet for all occasions.

There is a great shortage of both pigs and fowls for these 438 ceremonial occasions. Pigs are bought for high prices ($20 to 439 $30)--from neighboring villages and even, as Crocombe and Hogbin [435] say, from European planters. Fowls tend to be made available on big occasions by whoever has them so that their number does not increase--a few dozen in each of the two villages.

We may distinguish, among local plant resources which yield 241 economic products, those plants which are native to the district 311 and those which have been introduced by Europeans for cash cropping purposes. Starting our survey with the former of these two categories, we shall deal first with food plants and next with economic trees. I have tabulated average food plants per household as shown for Rimoldi's Sivepe sample and as shown by Crocombe and Hogbin for Inonda (Table 7).[1] The pattern for the two places is remarkably similar except that sweet potato is a notably more important crop at Inonda than at Sivepe. The reason for this is that it is more dependable under drought conditions such as often occur at Inonda and also, it seems to do better at Inonda. The fact that the Inonda taro acreage is higher than the Sivepe acreage reflects no more than the higher yield per acre in the latter place. There is no evidence that any major change occurred in the quantities grown or the methods of cultivation over the period with which we are concerned, though a small increase in the consumption of Xanthosoma taro may be a symptom that people may be starting to

A [See Cat. 116, p. 212--Analyst]

177 political and value system modified in only such minor ways that a withdrawal of Australian power at this stage might well lead to a discarding of many of the innovations. Certainly, this is what many of the villagers fear and what makes them distrust any politicians who are pressing for immediate independence.

177 Food: The Orokaiva menu is still basically the same as in the past.
262 Taro forms the mainstay of the meal, with various vegetable relishes, while cooking bananas, sweet potatoes and yams are eaten in significant quantities. Sugar beet, coconut and other nuts supplement the diet.
[263] Animal foods are eaten only on special occasions. It is the festive diet that has undergone recent changes: trade salt is almost universally
[411] used instead of the native product. Fish and game have become rare as a result of the introduction of guns and snorkels. The government pressure against village pig-keeping has resulted in these becoming rarer also. On the other hand, tins of fish and meat are bought in trade stores and may make up for the loss of fresh animal food. Rice is another introduced food, which was first eaten by members of the Papuan constabulary, and distributed on a small scale when the Allies were fighting the Japanese in the Northern District. The first time that a large group of Orokaiva ate rice as a staple diet was during the period in the camps after the eruption. Today, it is a food bought when there are guests or a celebration. It is then eaten as a
[272] side dish, together with taro. Tea and sugar have likewise become
[263] favoured at festive meals. Coffee, the main cash crop of the district, is totally unknown as a beverage; cocoa is likewise unknown, except as a plantation crop.

291 Clothing: At the time of the eruption, traditional clothing was
177 universally worn. European clothing was introduced to the villages in the 1950's by young men returning from employment in town. Today, young and old wear European-type clothing except when doing traditional dances. On one occasion a man dressed in full regalia to settle a quarrel with a neighbouring village. This, I was told, added dignity to his embassy. Men wear shirts and shorts; women wear Mother Hubbard type of skirts and blouses, as well as frocks for dressy occasions. Underclothes are not worn, though the Women's Clubs, encouraged by an Australian adviser, have been trying to introduce them. I was told that in Hohorita masculine opposition against this innovation (underclothes for women and children) was quite violent--they ripped them off. This story, however, came from a woman councillor who was not a member of the Sangara tribe. The men wear shirts only when dressed up; normally they are bare above the waist and many of the women likewise, though some of the younger ones affect blouses a good deal of the time, certainly on formal occasions. The causes of this change are not only practise in the schools and mostly in the churches, but also a rather widespread change of fashion. The Anglican Church does not stop women from taking communion if they wear nothing above the waist; the pressure is purely one of fashion.

24: Schwimmer E-5 (1966-1973) 1977
OJ23 Orokaiva OJ23

only with reference to a quite novel form of infringement of the taboo—a far more offensive infringement than had ever happened before. Just what made grenades and guns so offensive?

This question may be answered on several levels. The first of these is a purely ritual level. Of all the novel activities in which the Orokaiva engaged near the mountain, the ones that were singled out as significant stood out by making a sharp, loud, and dangerous noise. Now there are many ritual contexts where the Orokaiva use silence as a sign of respect and noise as a sign of disrespect. Hence the Orokaiva were ritually consistent when they told me it was the noise of the hunters' guns that angered Sumbiripa. But hunting rifles have a further symbolic significance that should be taken into account. I was told that game on the mountain was plentiful until the guns were introduced but that today hardly any game is left because the guns killed it all. In this instance the Orokaiva were giving a very reasonable explanation of a drop in game population which was probably real enough. In fact everybody uses guns today or wants to use them, as they are effective for hunting. But they are also sinister—that is, their effectiveness is known to be too great to allow the game population to survive.

The young men who took up the use of hunting rifles between the end of World War II and the time of the eruption were bold innovators and at the same time they were considered slightly wicked in abandoning traditional hunting methods. This is implied by informants who account for the eruption by the anger of Sumbiripa. They are thinking of the breakdown of the old order by the adoption of European innovations, Sumbiripa representing the potency of the old order. They argue that if only the young men had not started to use hunting rifles, the disaster would not have happened. The young men would never have dared to make such a din close to the crater if their respect for the spirits had not been undermined by newfangled doctrines.

The explanation of the disaster considered here resembles all other recorded explanations in one fundamental respect: it is not merely the application of a traditional rule to a new event but it generates a new rule, justifies the rule in the light of empirical evidence, and can be comprehended only in the framework of an ideology which in turn was generated by contemporary events. The starting point of all the explanations is the activity of white officials, missionaries, and traders among the Orokaiva and the

innovations they have brought. Those who blame the eruption on the anger of Sumbiripa regard these innovations as potentially disastrous. They argue that the eruption has proved their point; it has fortified them in their ideology. Furthermore, they have established the rule that people should not shoot on the mountain. Before the eruption this was not, to my knowledge, clearly formulated as a ritual prohibition. Today it is clearly stated though generally disregarded for reasons we shall soon learn. In justification of the rule, it should be noted that it is supported by some very cogent evidence from Sivepe villagers. It is a fact that while the eruption killed nearly all the Sangara it killed very few people of Isivita and the Sasembata districts, even though they live equally close to the crater. It is also a fact that while the Sangara had many hunting rifles in the late 1940s, the Isivita and the Sasembata districts then had few or none. I was told that Sumbiripa gave two signs just before the eruption. To the Isivita people and those of Sasembata district he made a sign of blue fire, which meant they would be saved. To the Sangara people he gave a sign of red fire, which meant they would all die.

We note that this way of explaining the disaster is concerned with a precontact social macrosystem comprising two allied groups, the Sasembata and Isivita, and their traditional enemies, the Sangara. It is not concerned with the contemporary macrosystem which is the system of relations holding between Papuans, the government, and the mission. Neither the government nor the mission enters into the explanation. Furthermore, the explanation emphasizes the tribal boundary between the Sangara people and those designated as the Waseta tribe by Williams (1940).[14] It is, in fact, the opposition between Sangara and Waseta that is stressed by this explanation.

It is precisely this opposition that makes clear the strategic and manipulative nature of the argument. Waseta are using the occasion of the eruption to score a point against their old rivals and enemies the Sangara, who deserved to be punished as retribution for earlier acts of war. The explanation ignores the fact that ninety-two Waseta also were killed in the disaster.

At this point we recognize the explanation as part of a connotative system. Any reasonable explanation of the disaster would account for all the deaths. The division of the dead into tribal or ethnic groups is logically insignificant. In a connotative system,